

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

INFORMATION DISCLOSURE STATEMENT

In re Application of: Paul Brown et al.

Serial No.: 10/697,052

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Filed: 10/31/2003

Examiner: Unknown

Title: *A Method for Discovering Undeclared and Fuzzy Rules in Databases*

Commissioner of Patents  
and Trademarks  
Washington, DC 20231

Sir:

Applicant is aware of the following references listed below, copies of which are enclosed:

FOREIGN PATENTS

JP 2001-344259

LITERATURE

Paul Brown et al., "ARAM: Automatic Discovery of Fuzzy Algebraic Constraints in Relational Data," IBM Almaden Research Center, Paper No. 302, 12pgs.

Paul Brown et al., "BHUNT: Automatic Discovery of Fuzzy Algebraic Constraints in Relational Data," *Proceedings of the 29<sup>th</sup> VLDB Conference*, Berlin, Germany, 2003, 12pgs.

Anna Manning et al., "Data Allocation Algorithm for Parallel Association Rule Discovery," *Proceedings of the Advances in Knowledge Discovery and Data Mining, 5<sup>th</sup> Pacific-Asia Conference, PAKDD 2001*, Berlin, Germany, 2001, 6pgs.

Jarek Gryz et al., "Discovery and Application of Check Constraints in DB2," *17<sup>th</sup> International Conference on Data Engineering*, April 2-6, 2001, Heidelberg, Germany, 5pgs.

Parke Godfrey et al., "Exploiting Constraint-Like Data Characterizations in Query Optimization," *ACM SIGMOD 2001*, May 21-24, 2001, Santa Barbara, California, 11pgs.

Bogdan Czejdo et al., "Materialized Views in Data Mining," *Proceedings of the 13<sup>th</sup> International Workshop on Database and Expert Systems Applications (DEXA '02)*, September 2-6, 2002, Aix-en-Provence, France, 5pgs.

Ramakrishnam Srikant et al., "Mining Quantitative Association Rules in Large Relational Tables," *Proceedings of the 1996 ACM SIGMOD International Conference on Management of Data*, Montreal, Quebec, Canada, 1996, 12pgs.

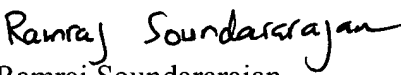
Pauray Tsai et al., "Mining Quantitative Association Rules in a Large Database of Sales Transactions," *Journal of Information Science and Engineering*, 2001, pp. 667-81.

Chang-Hung Lee et al., "On Mining General Temporal Association Rules in a Publication Database," *Proceedings of the IEEE International Conference on Data Mining*, San Jose, California, November 29 – December 2, 2001, pp. 337-44.

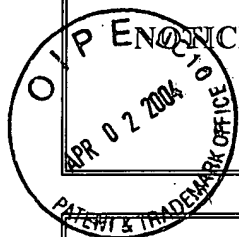
Patrick Bose et al., "On Some Fuzzy Extensions of Association Rules," *Joint 9<sup>th</sup> IFSA World Congress and 20<sup>th</sup> NAFIPS International Conference*, Vancouver, BC, Canada, July 25-28, 2001, pp. 1104-1109.

The above-listed references are, in the belief and opinion of the undersigned, the closest art of which the applicant is aware as of the date of execution of the Declaration in the above-captioned application.

Respectfully submitted  
By Applicant's Representative,

  
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REVISED PTO FORM 1449	SERIAL NO.	GROUP ART UNIT	ATTACHMENT TO PAPER NUMBER
	10/697,052	Unknown	
	TITLE: <i>A Method for Discovering Undeclared and Fuzzy Rules in Databases</i>		
	APPLICANT(S): Brown et al.		
DOCKET NUMBER: ARC920030044US1			

FOREIGN PATENT DOCUMENTS						
INIT.	DOCUMENT NO.	DATE	COUNTRY	NAME	CLASS	SUB-CLASS
	2001-344259	12/14/2001	Japan	Koyanagi et al.		

OTHER REFERENCES	
INIT.	(Include name of the author, title of article, title of publication, date, pertinent pages, volume-issue, publisher city and/or country where published, etc.)
	Paul Brown et al., "ARAM: Automatic Discovery of Fuzzy Algebraic Constraints in Relational Data," IBM Almaden Research Center, Paper No. 302, 12pgs.
	Paul Brown et al., "BHUNT: Automatic Discovery of Fuzzy Algebraic Constraints in Relational Data," <i>Proceedings of the 29<sup>th</sup> VLDB Conference</i> , Berlin, Germany, 2003, 12pgs.
	Anna Manning et al., "Data Allocation Algorithm for Parallel Association Rule Discovery," <i>Proceedings of the Advances in Knowledge Discovery and Data Mining, 5<sup>th</sup> Pacific-Asia Conference, PAKDD 2001</i> , Berlin, Germany, 2001, 6pgs.
	Jarek Gryz et al., "Discovery and Application of Check Constraints in DB2," <i>17<sup>th</sup> International Conference on Data Engineering</i> , April 2-6, 2001, Heidelberg, Germany, 5pgs.
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	Ramakrishnam Srikant et al., "Mining Quantitative Association Rules in Large Relational Tables," <i>Proceedings of the 1996 ACM SIGMOD International Conference on Management of Data</i> , Montreal, Quebec, Canada, 1996, 12pgs.
	Pauray Tsai et al., "Mining Quantitative Association Rules in a Large Database of Sales Transactions," <i>Journal of Information Science and Engineering</i> , 2001, pp. 667-81.
	Chang-Hung Lee et al., "On Mining General Temporal Association Rules in a Publication Database," <i>Proceedings of the IEEE International Conference on Data Mining</i> , San Jose, California, November 29 - December 2, 2001, pp. 337-44.
	Patrick Bose et al., "On Some Fuzzy Extensions of Association Rules," <i>Joint 9<sup>th</sup> IFSA World Congress and 20<sup>th</sup> NAFIPS International Conference</i> , Vancouver, BC, Canada, July 25-28, 2001, pp. 1104-1109.

EXAMINER \_\_\_\_\_ DATE \_\_\_\_\_